THE AGRICULTURIST

THE KEEPING PROPERTY OF BUTTER.

Professor L. B. Arnold, writing to the *New York Tribune*, remarks as follows:—"Mr. J. B. Smith writes from Ohio that in patterning after the methods practised near Philadelphia, he was successful in making fine butter by setting milk shallow at 60 degrees for 48 hours till it was sour, and churning the cream when it was thick; but his butter would not keep more than a week, and was best when first churned, and he concluded that this was because the cream was so much and so long exposed to the air. He finds evidence of this in the fact, that creamery butter made by deep, cold, and covered setting, so that no air can get to the cream, keeps very much longer than his butter did when he set his milk open to the air, and thinks that if the creamery system could be carried out on the farm it would be a great boon to farmers, and suggests lowering milk and cream into a well as a convenient and efficient means for running a miniature creamery on the farm, as he is doing, and turning out much longer-keeping butter than formerly. This suggestion may not be without some value. A well may often be utilised as a cheap and convenient means for refrigerating milk, and certainly deep and cold setting will make butter better and of more uniform quality than when subjected to the ups and downs of similar temperature and exposure to the vitiated air. But the logic which seems so plausible to our friends is faulty and needs correction. It is not true that the exposure of cream to the air for forty-eight hours at 60 degrees whilst rising tends to shorten the life of butter made from it, unless the air is charged with unusual impurities. On the contrary, the keeping quality of butter is improved by such exposure, and its flavor also heightened. Exact scientific experiments, and the experiences of such men as E. W. Chever and Henry Stewart, and hundreds of other less known but careful observers, have settled this point very fully. Our correspondent may take it for granted that when he was making butter on the Philadelphia plan of shallow setting and long exposure to pure air before skimming, he was doing the very best thing he could to make not only good but long-lived butter. If his butter failed to keep more than a week it was from some other cause than airing the cream, and a casual remark in his letter makes it pretty evident what that cause was. He says—'This method makes perfect butter when churned once a week for those who are used to eating it. There is a pleasant taste and smell imparted from the buttermilk in it.' Our friend evidently adopted the practice formerly much in use in Eastern Pennsylvania, and also in Orange County, of leaving in a little buttermilk to flavor the butter which was at once consumed. Many people like this fresh buttermilk flavor, and are willing to pay a high price for it, but the butter which contains it will not keep. If instead of leaving buttermilk in it, it had gathered in the churn, not in a solid mass, but in pellets, and been thoroughly cleansed of buttermilk by washing with cold water or, what is better, cold brine, and then salted and worked as little as possible in getting it solid, it would have endured longer than that made by deep, cold, and covered setting in his well. These remarks are not intended to advise going back to shallow setting in small pans, though better and longer keeping butter might be made where an even temperature of about 60 degrees could be maintained. The old process is too laborious to compete with the modern labor saving appliances. The difference in quality and keeping will not pay the difference in the cost of labor. One might as well talk of going back to mowing by hand because grass can be mowed nicer with a scythe than with a mowing-machine. My purpose is only to correct the false impressions imbibed by many persons that all airing of cream and butter is averse to durability, and that the deeper milk is set, and the quicker and lower it is cooled, and the more it is excluded from the air, the longer the butter will keep and the better it will be. Though good butter that will remain sound a reasonable length of time for marketing and consuming can, with little labor, be made by such treatment, its tendency is exactly the reverse of what, as above stated, has been supposed. Airing is better than confinement, and slow changes and medium temperatures are better than rapid changes and extremes of heat or cold, in all that relates to butter-making."

FEEDING STOCK.

Economical feeding, says the *Western Agriculturist*, is an important factor in stock breeding. In regard to grinding grain for feeding, it has been shown in every case in which a test has been made that meal is worth about one-third more than whole grain. The same is true, too, of hay, of which fifteen pounds fed cut into chaff and fed in its natural condition. Linseed meal (ground oil cake) is an excellent food for stock, when fed with grain and rough feed. It is specially adapted to rapid fattening and healthy growth. Don't neglect a regular supply of salt and a constant supply of good, clean water.

HUNGARIAN GRASS.

Dr. E. L. Sturtevant, in answer to questions about Hungarian grass, writes the Elmira Farmers' Club:—If we study the plant we find that it has two peculiarities. First, it is a plant of warm regions. Second, it is a drought plant. The inference from this is, what my experience in light soil confirmed, that the ground must be warm at the time of planting, and the soil must be a dry one, that is free from standing water. A careful examination has shown me that the Hungarian is a very shallow rooting crop—it feeds very near the surface, when the temperature of the soil is highest. Another peculiarity with me has been that a single cold or cool night checks the growth of leaf and forces a growth of seed. Bearing these observations in mind, I have not failed in obtaining a very large crop by pursuing the following course:—First, planting not earlier than June 20, in order to secure the warm soil and the certainty of no cool nights during the ensuing six weeks; second, manuring or fertilizing close to the surface and just scratching in; third, planting at least six pecks of seed per acre. In order to have the crop relished by cattle I have found it necessary to sow thickly and to cut just as the heads begin to be discovered. By this course I have a hay the cattle prefer to timothy, and pound per pound it expends better than timothy, and my eye detects no falling away in condition and the scales detect no change in the milk yield. If over-ripe (and most people cut too late) the cattle do not relish it as they otherwise could, and the eye and scales show inferior feeding value to the best hay."

THE VOYAGE OF THE JULIA.

Mr. F.L. Clarke who arrived here on Tuesday last via San Francisco from the Gilbert Islands has obliged us with the following interesting account of the "Julia" from her arrival at Levuka to the time of her wreck.

Arriving off the harbor of Levuka, Ovalua Island, Fiji, on Sunday October 21st, colors were set for a pilot, and in a short time he came off, and took the Julia inside the pretty coral encircled lagoon, inside which were quite a number of vessels.

The pilot told us that some curiosity had been excited ashore as to the nationality of the Julia, the Hawaiian flag been strange to those waters.

A copy of the Port Regulations was left with us, and it proved to be quite an elaborate document; foreshadowing the comparatively large bill of expense to which vessels are subject to in that port.

The town of Levuka lies against a steep hill-side, or rather series of little hills which blend with higher, more massive peaks that rise to a considerable height and are covered with a most luxuriant growth of varied vegetation.

Landing, we find that the "Bund," or long street fronting upon the harbor constitutes the business portion of the city, and is the only one that can be called level. Behind the stores, hotels, and other business places are perched the dwelling houses, churches and schools.

A supply of fresh water for vessels is laid down to one of the wharves through a pipe from of the two beautiful streams that flow into the harbor.

Above the town, and a short distance back, are two fine looking bathing places, large basins being built in the rocky bed of the streams, and hither from daylight to 9 a.m., and after 3 p.m., the male population ablute, while between those hours the pools are *tabu* to all but the gentler sex. If any rash male should be found prowling around there between 9 o'clock and 4 o'clock, he would be—a large notice informs—compelled to pay a fine of £10. No one, we believe has, as yet had to leave this sum of money on that account.

The foreign population of Levuku are found growling over the summary transfer by the Governor-General of the seat of Government from their pretty town with its eligible harbor, to Suva, Viti Levu Island; the transfer entailing a loss of business and *prestige* that is a serious matter.

Along the beach, at a little distance from the town, stands the (now disused) Government building, surrounded by a fine garden filled with rare and curious plants, native to the group and also brought by labor vessels from the New Hebrides and the Solomon Islands.

Through the courtesy of Mr. Charles St. Julian, the Stipendiary Magistrate, of Levuka, we were allowed to select all cuttings, seeds and growing plants that we wished. We thus secured some twenty-five varieties of crotons, many young palms and large number of other plants useful and ornamental. (In this connection we would also mention that from the fine garden of the Rev. Mr. Floyd, of the Church of the Redeemer, we procured some fine lilies, wax plants and flowering shrubs. All these we find room for in our Wardian case, where, up to the time of their loss in the Julia—over two months after—they grew finely.)

Starting on an expedition into the mountains, under the guidance of a couple of natives, we spent a day in collecting splendid ferns and other plants, and in visiting points of interest connected with the *very* recent cannibalistic days of the Fijis, and returned laden. After a few other days spent in collecting corals, shells and interesting samples of Fijian industry and art, we set sail for the New Hebrides group, lying almost directly westward, and dropped anchor in Havana Harbor, Isle Sandwich, on the 7th of November.

Here a boat's-crew of New Hebrideans were shipped for the cruise in the group, to be returned at the end of the season.

Leaving Havana harbor on the 12th the Julia cruised until December 15th when we again reached Havana harbor, having visited about twenty islands, the boats being down every day and all day after labor.

For the most part we found that there was labor enough, but the size and rig of the Julia prejudiced very many natives who were willing to go to the Hawaiian Islands, (of which they have a pretty good idea,) and they declared that the Julia was from the Fijis, and to the Fijis they said, in very forcible language, they would not go.

Leaving Havana harbor, December 18th, the Julia proceeded up through the group to the Bank's Group, and when well to the northward changed course for the southernmost of the Kingsmill Group, intending there to fill up with Gilbert Islanders. By the 26th, a little north of Lat. 9° South, met with a good wind from the westward, (an unusual circumstance at that time of the year), and by January 8th of this year the Julia anchored at the island of Onato, in about Lat. 2° South, remaining there one day. At 5 P. M. of the 9th, got under way for Byron's (or Nukuhao) Is., distance about 58 miles. The wind was good, and the expectation was that the Julia would be at Nukuhao by 4 A. M. the next morning. During the night the weather was squally and the wind unsettled.

At 3 A. M., when the watches were changed, the officer in charge remarked that he thought the Julia must be nearing the land, and, as if in verification of his opinion, the lookout a few minutes after sung out, "breakers! breakes!" The mate sprang to the wheel but before any change could be made in the vessel's direction, all on board felt her crash on to the reef, and gained her way deeply into the jagged coral rocks.

In a moment Captain Tripp was on deck giving such orders as were required, and while the rain poured in blinding sheets, and the savage surf swept in on the stern and quarter of the vessel, a boat was lowered, manned and brought under the stern when a kedge anchor, to which was attached a heavy line was lowered into it.

This was a service of no little danger but was safely accomplished and the anchor taken out astern and dropped into the water.

The line was then lead forward from over the taffrail to the windlass and as heavy a strain brought to bear as it would stand.

Previous to taking out the anchor the sails had been lowered and some hopes were entertained that the vessel might be pulled off.

The men worked manfully but soon it was evident that the Julia was too firmly embedded in the rocks to be moved; all the move that the incoming surf tended to force her further on the reef.

Soundings were taken and but three feet of water found alongside the vessel's waist.

By this time the grey dawn had begun to render objects visible at some little distance off and hundreds of natives were seen crowding out on the reef, which, as the tide was going out, was rapidly becoming dry.

Captain Tripp then ordered the vessel to be lightened, the provisions being packed ashore by the natives and the crew.

The work went on as rapidly as possible so as to save the tide, and by the time it turned and began making again a large quantity of stores were piled on the beach.

During the morning the force of the waves beating against the stern and sweeping in on her decks had opened the deck seams so that the deck hold was filled with water, and Captain Tripp finally left the wreck, coming through the rising surf on a line that had been previously carried ashore.

"The natives who were crowding on board the vessel, were ready enough at first to help in getting things ashore; but, as soon as they saw that the vessel could not be got off, they began to help themselves to everything they could manage to get hold of. There being no means of restraining the crowd, a large number of articles were carried off, or wilfully destroyed. The native (Samoan) missionary in the village near the scene of the wreck, did all that he could to aid Captain Tripp and his companions, and the large council-house was given up to them. To this place all the stores and provisions that had been saved were removed, and the best arrangements possible, under the circumstances, were made for the comfort of all hands.

On the 11th, the American bark J. W. Seaver, from Samoa, on a trading voyage, through the group, and then hence to San Francisco, via Jaluit, came to anchor off the island, and Captain Melander came ashore; and, upon application being made to him by Captain Tripp for a passage for the wrecked people to Jaluit, stated that he could not take so large a number—16 laborers, and the crew of twelve—28 in all, as he had not water sufficient, and it would be impossible for him to procure a sufficient supply in the group. He, however, offered to provide passage for Capt. Tripp, or whomsoever he might send, to go through the group, in the Seaver, in the hopes that some vessel might be fallen in with that would afford the necessary relief.

Accordingly Captain Tripp gave the writer who had accompanied him from Honolulu in the Julia, the necessary orders to take passage in the Seaver, and with full powers to act for him in procuring a vessel to come to his relief, he considering it his duty to remain with the New Hebrides labor and his crew.

The Seaver finally left Nukunao on the 18th of January and on the 17th February met the Hawaiian schooner "Kaluna," Captain Lovell, at the island of Tarawa, with whom an agreement was made for him to touch at Nukunao and take Capt. Tripp and his people to Honolulu.

Capt. Lovell contemplated a cruise of at least another month in the group, trading and procuring labor. He would then be obliged to go to Jaluit for water for the home trip, and, according to his caculations would reach Honolulu about the 15th or 20th of this month—April.

[It is fortunate for Captain Tripp and his people that the schooner Kaluna was met with by Mr. Clarke, and found available to carry out the service required of her. The heavy expense of chartering a vessel elsewhere to bring the Hawaiians and the newly recruited labor to Honolulu, has thus been considerably lessened. It was judicious on the part of Mr. Clarke to take passage on the J. W. Seaver and come on to Honolulu via San Francisco and furnish the earliest intelligence of the Julia's unfortunate fate.—ED. P. C. A.

FOREIGN NEWS.

The P. M. S. S. Zealandia, Capt. Webber, arrived Monday morning at daylight. She brings California dates to the 13th instant. We cull the following news items:

New York, April 18.—Indications that that the Government intends to undertake an autumn campaign towards Khartoum are multiplying. Preparations for such an event are being actively made.

Earl Granville, Foreign Secretary of State, is busy with negotiations with the European Powers regarding the re-adjustment of the Egyptian finances, which will probably lead to a conferance. Already the assent of all the Powers interested, except France, has been gained to a modification of the law of liquidation in order that a fresh loan may be raised.

Referring to the influence which the discovery of new dynamite plots will exercise on American opinion, the *Globe* says: How will America take the fresh revelations? American citizens doubtless detest the cowardly scoundrels who abuse the hospitality of the United States by making use of the republic as a dynamite basis, but why do they not relieve themselves of the reproach of allowing Fenianism publicly to hatch muderous plots against the English people?

The *Times* says: The American advice to England to let the Irish agitators of the United States alone, because the agitator and his ways can't last, does not relieve the danger of English citizens. These agitators keep Irish-Americans discontented and out of humor with the sober industrial life around them in America. England has a pressing concern in the suppression of this obnoxious class, but American law has no word to say about them.

The Minister of Justice has informed Premier Smith of British Columbia that the bill passed by the British Columbia Legislature prohibiting the immigration of Chinese into that province has been disallowed.

The English Minister to Egypt has a dispatch from General Gordon bearing the date of March 30th. It says that on March 25th General Gordon disarmed 250 Bashi-Bazouks who had mutinied. On the following day he shelled the rebel camp on the Blue Nile and killed forty of the enemy. On March 27th the rebels fired upon Khartoum from a village opposite, which they were soon forced to evacuate, losing fifty-nine men in the engagement. The Bashi-Bazouks occupied the village and held it until March 30th, when the rebels returned in force and drove them out, but then retired themselves. General Gordon estimates that the rebels about Khartoum number fully 2,000.

A messenger who left Khartoum March 27th has arrived at Berber. He reports the condition of affairs at Khartoum extremely critical. The irregular troops in General Gordon's command are in a state of mutiny.

The British Government has sent positive orders to General Gordon to withdraw from Khartoum with the garrison as soon as possible.

The depression in British shipping has become extreme. Ports are crowded with destitute and suffering sailors. In Shields alone are 4,000 seamen out of employment. Hundreds of seamen are lying idle upon the Tyne and 10,000 laborers in the Tyne shipyards are out of work, and many more in the Sunderland shipyards. Business is slack in the yards along the Clyde, but so far there has been less suffering than in other shipbuilding localities.

Charles Reade died on 11th April. [Charles Reade was born in 1814. He graduated from Magdalen College, Oxford, in 1835, and in 1643 was called to the bar at Lincoln's Inn. He was a prolific and popular novelist and also wrote several plays. His best known novels are "Peg Woffington," "Christy Johnstone," "It is Never too Late to Mend," "Jack of All Trades," "Hard Cash," "Put Yourself in His Place," "Love Me Little, Love Me Long," "White Lies," "Cloister and Hearth," "Griffith Gaunt," "A Terrible Temptation," "A Woman Hater," "The Wandering Heir," and many short stories, one of which was running in periodicals at the time of his death.]

The annual boat race between the Ox-